

CLAIMS

1. A lancing unit comprising: a lancing member to be mounted,
in use, to a lancing apparatus which includes a housing having
5 a front end formed with an opening and a movable member provided
in the housing reciprocally movably; and

a support member for removably supporting the lancing
member;

wherein the lancing member is capable of being fitted and
10 mounted to the movable member so as to be capable of being pulled
out of the movable member toward the front end side of the housing,
the lancing member including an engagement surface which is
oriented toward a rear side of the housing when the lancing
member is mounted to the movable member; and

15 wherein the support member includes engagement means which
is inserted into the housing through the opening for engagement
with the engagement surface when the lancing member is mounted
to the movable member.

20 2. The lancing unit according to claim 1, wherein the lancing
member includes a needle, and a body supporting the needle.

3. The lancing unit according to claim 2, wherein the body has
an outer circumferential surface formed with a stepped portion
25 comprising a recess or a projection, the engagement surface
being provided by the stepped portion.

4. The lancing unit according to claim 3, wherein the engagement means includes at least one engagement projection extending in a first direction in which the needle of the lancing member extends and having a front end formed with a pawl projecting
5 in a second direction crossing the first direction.

5. The lancing unit according to claim 4, wherein the engagement means includes a plurality of engagement projections, and wherein the engagement projections are engageable with the
10 engagement surface in such a manner as to clip the lancing member when the lancing member is mounted to the movable member.

6. The lancing unit according to claim 5, wherein the stepped portion of the body comprises a flange;
15 wherein pawls of the engagement projections are spaced from each other by a distance which is smaller than an outer diameter or a width of the stepped portion; and

wherein, when the engagement projections are inserted into the housing in a state in which the lancing member is mounted
20 to the movable member, each of the engagement projections resiliently deforms in the second direction due to contact with the stepped portion so that each of the pawls passes over the stepped portion.

25 7. The lancing unit according to claim 2, wherein the support member includes a cap for covering the needle of the lancing member and removably supporting the lancing member.

8. The lancing unit according to claim 7, wherein a boundary
portion between the body and the cap has a structure which is
more liable to receive stress than other portions of the body
5 and the cap.

9. The lancing unit according to claim 1, wherein the support
member includes a tubular portion which is capable of being
slid along and fitted to the front end of the housing; and
10 wherein the lancing member and the engagement means are
arranged in the tubular portion.

10. The lancing unit according to claim 2, further comprising
an analytical part and additional engagement means;
15 wherein the analytical part is removably supported by the
support member so that the analytical part can be mounted at
a predetermined position in the lancing apparatus in mounting
the lancing member to the movable member, the analytical part
including an engagement surface which is oriented toward a rear
20 side of the housing when the analytical part is mounted to the
predetermined position; and

wherein, when the additional engagement means is inserted,
through the opening, into the housing in a state in which the
analytical part is separated from the support member and mounted
25 to the predetermined position in the lancing apparatus, the
additional engagement means engages the engagement surface of
the analytical part.

11. The lancing unit according to claim 10, wherein the additional engagement means includes an additional engagement projection extending in a first direction in which the needle of the lancing member extends and having a front end formed with a pawl
5 projecting in a second direction crossing the first direction.

12. The lancing unit according to claim 10, wherein the support member includes a tubular portion which is capable of being slid along and fitted to the front end of the housing, and wherein
10 the lancing member, the analytical part, the engagement means and the additional engagement means are arranged in the tubular portion.

13. The lancing unit according to claim 12, wherein the engagement
15 means and the additional engagement means are so arranged as to enter the housing together when the tubular portion is slid along and fitted to the front end of the housing.

14. The lancing unit according to claim 13, wherein the support
20 member includes a partition wall partitioning an interior of the tubular portion into a first and a second chambers adjoining each other in an axial direction of the housing; and

wherein the cap, the lancing member and the analytical parts are arranged in the first chamber, whereas the first and
25 the second engagement means are arranged in the second chamber.

15. The lancing unit according to claim 14, further comprising

a lid for hermetically closing the first chamber.

16. The lancing unit according to claim 12, wherein the support member includes a chamber for accommodating the cap, the lancing member and the analytical part, and wherein the engagement means and the additional engagement means are also arranged in the chamber.

17. A lancing member removal tool for removing a lancing member fitted and mounted to a movable member of a lancing apparatus, the apparatus including a housing which has a front end formed with an opening and in which the movable member is arranged reciprocally movably,

the removal tool comprising engagement means for entering the housing through the opening for engagement with an engagement surface of the lancing member, the engagement surface being oriented toward a rear side of the housing.

18. The lancing member removal tool according to claim 17, further comprising a support member including a tubular portion and supporting the engagement means;

wherein the engagement means engages the engagement surface of the lancing member when the tubular portion is slid along and fitted to the front end of the housing.

19. The lancing member removal tool according to claim 18, further comprising additional engagement means provided at the support

member;

wherein, when the tubular portion is slid along and fitted to the front end of the housing with an analytical part mounted to a predetermined position in the lancing apparatus, the
5 additional engagement means enters the housing through the opening and engages an engagement surface of the analytical part, the engagement surface being oriented toward a rear side of the housing.

10 20. A lancing apparatus comprising:

a housing having a front end formed with an opening;

a movable member arranged in the housing reciprocally movably and having a front end to which the lancing member can be fitted;

15 biasing means for biasing the movable member toward the front end of the housing;

latching means for latching the movable member when the movable member is pushed deep into the housing more than a predetermined distance against a biasing force of the biasing
20 means; and

latch releasing means for releasing the movable member from the latched state provided by the latching means when a predetermined operation is performed;

wherein the apparatus further comprises a stopper capable
25 of preventing the movable member from being pushed deep into the housing more than the predetermined distance.

21. The lancing apparatus according to claim 20, wherein the stopper is capable of being positioned in a movement path of the movable member or a co-operating member moving together with the movable member and capable of contacting the movable member or the co-operating member to control retreating movement of the movable member.

22. The lancing apparatus according to claim 20, wherein the housing is provided with a holding portion for removably holding an analytical part.